

CLAIMS

I claim:

1. An assembly for identifying and tracking an asset comprising:
 - 2 a responding device adapted to be connected to an asset; and
 - 3 an antenna electrically connected to said responding device.
- 1 2. The assembly of claim 1 wherein said responding device is a radio frequency identification device.
- 1 3. The assembly of claim 2 wherein said radio frequency identification device 2 is passive.
- 1 4. The assembly of claim 1 wherein said antenna extends substantially around 2 the entire outer periphery of said asset.
- 1 5. The assembly of claim 1 wherein said asset has a groove in the outer surface 2 thereof and said responding device and said antenna are positioned within said 3 groove.
- 1 6. The assembly of claim 5 wherein said responding device is a radio frequency 2 identification device.
- 1 7. The assembly of claim 6 wherein said radio frequency identification device 2 is passive.
- 1 8. The assembly of claim 5 wherein said groove extends substantially around 2 the entire outer periphery of said asset.
- 1 9. The assembly of claim 8 wherein said groove is generally annular.
- 1 10. The assembly of claim 8 wherein said antenna extends substantially around 2 the entire outer periphery of said asset.
- 1 11. The assembly of claim 5 further comprising:
 - 2 a sealant positioned in said groove so as to surround and secure said 3 responding device and said antenna in said groove.
- 1 12. The assembly of claim 1 further comprising:
 - 2 a second antenna electrically connected to said responding device.
- 1 13. The assembly of claim 12 wherein said first antenna extends along the outer 2 periphery of said asset and said second antenna extends along the inner 3 periphery of said asset.
- 1 14. The assembly of claim 13 wherein said responding device is positioned 2 within a hole in said asset.

- 1 15. The assembly of claim 13 wherein at least a portion of the interior of said asset has screw threads.
- 1 16. The assembly of claim 13 wherein said second antenna is embedded in a ring having a threaded outer surface that is mating with said screw threads of said interior of said asset.
- 1 17. An assembly for use as a fluid conduit comprising:
 - 2 a tubular;
 - 3 a responding device connected to said tubular; and
 - 4 an antenna electrically connected to said responding device.
- 1 18. The assembly of claim 17 wherein said responding device is a radio frequency identification device.
- 1 19. The assembly of claim 18 wherein said radio frequency identification device is passive.
- 1 20. The assembly of claim 17 wherein said antenna extends substantially around the entire outer periphery of said tubular.
- 1 21. The assembly of claim 17 wherein said tubular has a groove in the outer surface thereof and said responding device and said antenna are positioned within said groove.
- 1 22. The assembly of claim 21 wherein said responding device is a radio frequency identification device.
- 1 23. The assembly of claim 22 wherein said radio frequency identification device is passive.
- 1 24. The assembly of claim 21 wherein said groove extends substantially around the entire outer periphery of said tubular.
- 1 25. The assembly of claim 24 wherein said groove is generally annular.
- 1 26. The assembly of claim 24 wherein said antenna extends substantially around the entire outer periphery of said tubular.
- 1 27. The assembly of claim 21 further comprising:
 - 2 a sealant positioned in said groove so as to surround and secure said responding device and said antenna in said groove.
- 1 28. The assembly of claim 17 further comprising:
 - 2 a second antenna electrically connected to said responding device.

- 1 29. The assembly of claim 28 wherein said first antenna extends along the outer
2 periphery of said tubular and, said second antenna extends along the inner
3 periphery of said tubular.
- 1 30. The assembly of claim 29 wherein said responding device is positioned
2 within a hole in said tubular.
- 1 31. The assembly of claim 29 wherein at least a portion of the interior of said
generally tubular body has screw threads.
- 1 32. The assembly of claim 29 wherein said second antenna is embedded in a
2 ring having a threaded outer surface that is mater with said screw threads of said
3 interior of said tubular.
- 1 33. The assembly of claim 17 wherein said tubular is drill pipe and the fluid
2 conduit is a drill string for use in a subterranean well.
- 1 34. The assembly of claim 17 wherein said tubular is tubing and the fluid conduit
2 is a tubing string for use in a subterranean well.
- 1 35. The assembly of claim 17 wherein said tubular is pipe and the fluid conduit
2 is a pipeline.
- 1 36. The assembly of claim 17 further comprising:
 - 2 a tool connected to said tubular;
 - 3 a second responding device connected to said tool; and
 - 4 a second antenna electrically connected to said responding device.
- 1 37. An assembly for use as a fluid conduit comprising:
 - 2 a tubular;
 - 3 a collar releasably secured to one end of said tubular, said collar
4 comprising a generally tubular body;
 - 5 a responding device connected to said generally tubular body; and
 - 6 an antenna electrically connected to said responding device.
- 1 38. The assembly of claim 37 wherein said responding device is a radio
2 frequency identification device.
- 1 39. The assembly of claim 38 wherein said radio frequency identification device
2 is passive.
- 1 40. The assembly of claim 37 wherein said antenna extends substantially
2 around the entire outer periphery of said generally tubular body.

- 1 41. The assembly of claim 37 wherein said generally tubular body has a groove
- 2 in the outer surface thereof and said responding device and said antenna are
- 3 positioned within said groove.
- 1 42. The assembly of claim 41 wherein said responding device is a radio
- 2 frequency identification device.
- 1 43. The assembly of claim 42 wherein said radio frequency identification device
- 2 is passive.
- 1 44. The assembly of claim 41 wherein said groove extends substantially around
- 2 the entire outer periphery of said generally tubular body.
- 1 45. The assembly of claim 44 wherein said groove is generally annular.
- 1 46. The assembly of claim 44 wherein said antenna extends substantially around
- 2 the entire outer periphery of said generally tubular body.
- 1 47. The assembly of claim 41 further comprising:
 - 2 a sealant positioned in said groove so as to surround and secure said
 - 3 responding device and said antenna in said groove.
- 1 48. The assembly of claim 37 further comprising:
 - 2 a second antenna electrically connected to said responding device.
- 1 49. The assembly of claim 48 wherein said first antenna extends along the outer
- 2 periphery of said generally tubular body and said second antenna extends along
- 3 the inner periphery of said generally tubular body.
- 1 50. The assembly of claim 49 wherein said responding device is positioned
- 2 within a hole in said generally tubular body.
- 1 51. The assembly of claim 49 wherein at least a portion of the interior of said
- 2 generally tubular body has screw threads.
- 1 52. The assembly of claim 49 wherein said second antenna is embedded in a
- 2 ring having a threaded outer surface that is mating with said screw threads of said
- 3 interior of said generally tubular body.
- 1 53. The assembly of claim 37 wherein said tubular is drill pipe and the fluid
- 2 conduit is a drill string for use in a subterranean well.
- 1 54. The assembly of claim 37 wherein said tubular is tubing and the fluid conduit
- 2 is a tubing string for use in a subterranean well.

- 1 55. The assembly of claim 37 wherein said tubular is pipe and the fluid conduit
2 is a pipeline.
- 1 56. A process for identifying and tracking assets comprising:
 - 2 positioning a transceiver in proximity to an asset having a responding device and an antenna electrically connected to said responding device so as to permit communication between said transceiver and said responding device via said antenna.
 - 1 57. The process of claim 56 wherein said asset is generally tubular and said transceiver is passed along the exterior of said asset.
 - 1 58. The process of claim 56 wherein said asset is generally tubular and said transceiver is passed through the interior of said asset.
 - 1 59. The process of claim 57 further comprising:
 - 2 passing a second transceiver through the interior of said asset.
 - 1 60. The process of claim 56 wherein said responding device is a radio frequency identification device.
 - 1 61. The process of claim 60 wherein said radio frequency identification device is passive.
 - 1 62. A process for identifying and tracking tubulars comprising:
 - 2 positioning a transceiver and a tubular having a responding device and an antenna electrically connected to the responding device in proximity to each other without regard to the rotational orientation of said tubular so as to permit communication between said transceiver and said responding device via said antenna.
 - 1 63. The process of claim 62 wherein said asset is generally tubular and said transceiver is passed along the exterior of said asset.
 - 1 64. The process of claim 62 wherein said asset is generally tubular and said transceiver is passed through the interior of said asset.
 - 1 65. The process of claim 63 further comprising:
 - 2 passing a second transceiver through the interior of said asset.
 - 1 66. The process of claim 62 wherein said responding device is a radio frequency identification device.

- 1 67. The process of claim 66 wherein said radio frequency identification device
2 is passive.
- 1 68. A process for identifying and tracking assets comprising:
 - 2 positioning an asset having a responding device connected thereto within
 - 3 a transceiver having a generally annular antenna so as to permit communication
 - 4 between said transceiver and said responding device via said antenna.
- 1 69. The process of claim 68 wherein said asset is a tubular and said step of
2 positioning occurs without regard to the rotational orientation of said tubular.